

**PERBEDAAN ANGKA JAMUR UDARA SEBELUM DAN SESUDAH  
PENYINARAN LAMPU ULTRAVIOLET 144 WATT DENGAN VARIASI  
WAKTU 15 MENIT DAN 30 MENIT**

**Shabilla Sukma Maulidina<sup>1</sup>, Siti Nuryani<sup>2</sup>, Budi Martono<sup>3</sup>**  
Jurusan Analis Kesehatan Poltekkes Kemenkes Yogyakarta  
Ngadinengaran MJ III/62 Yogyakarta, Telp. (0274) 374200  
Email : [shabillasm@gmail.com](mailto:shabillasm@gmail.com), [suryaniajeng.2014@gmail.com](mailto:suryaniajeng.2014@gmail.com),  
[budimartono96@gmail.com](mailto:budimartono96@gmail.com)

**ABSTRAK**

**Latar Belakang :** Spora jamur di udara sering menjadi permasalahan laboratorium, salah satunya menyebabkan tumbuhnya jamur kontaminan saat praktikum mikologi. Salah satu metode pengendalian mikroorganisme adalah sterilisasi ruangan dengan radiasi sinar ultraviolet.

**Tujuan penelitian :** Mengetahui besar penurunan angka jamur udara sebelum dan sesudah penyinaran lampu ultraviolet 144 watt selama 15 dan 30 menit dan mampu mengidentifikasi jamur yang ditemukan.

**Metode penelitian :** Jenis penelitian ini adalah *quasy experiment* atau eksperimen semu dengan desain penelitian *non equivalent control group design*. Objek penelitian ini adalah jumlah koloni jamur udara sebelum dan sesudah disinari dengan lampu ultraviolet 144 watt selama 15 menit dan 30 menit. Data yang diperoleh dianalisis secara statistik menggunakan *SPSS 24.0 for windows* dengan uji parametrik *Paired Sample t Test* dan *Mann Whitney*.

**Hasil Penelitian :** Persentase penurunan angka jamur udara sesudah penyinaran 15 menit sebesar 35%, persentase penurunan angka jamur udara sesudah penyinaran 30 menit sebesar 31%, nilai signifikansi uji statistik *Mann Whitney* sebesar 0,806, jenis- jenis jamur yang ditemukan *Aspergillus sp.*, *Penicillium sp.*, *Rhizopus sp.* dan *Candida sp.*

**Kesimpulan :** Tidak perbedaan jumlah angka jamur udara sesudah penyinaran sinar ultraviolet 144 watt selama 15 menit dan 30 menit di Laboratorium Mikologi Jurusan Analis Kesehatan Poltekkes Kemenkes Yogyakarta.

**Kata Kunci :** Sterilisasi ruangan, sinar ultraviolet, jamur udara

**THE DIFFERENCE IN AIR MOLD NUMBERS BEFORE AND AFTER 144-WATT ULTRAVIOLET LAMP IRRADIATION WITH TIME VARIATIONS OF 15 MINUTES AND 30 MINUTES**

**Shabilla Sukma Maulidina<sup>1</sup>, Siti Nuryani<sup>2</sup>, Budi Martono<sup>3</sup>**  
Jurusan Analis Kesehatan Poltekkes Kemenkes Yogyakarta  
Ngadinegaran MJ III/62 Yogyakarta, Telp. (0274) 374200  
Email : [shabillasm@gmail.com](mailto:shabillasm@gmail.com), [suryaniajeng.2014@gmail.com](mailto:suryaniajeng.2014@gmail.com),  
[budimartono96@gmail.com](mailto:budimartono96@gmail.com)

**ABSTRACT**

**Background :** *Fungal spores in the air often become laboratory problems, one of which causes the growth of contaminant fungi during mycology practicum. One method of controlling microorganisms is sterilization of the room with ultraviolet radiation.*

**The aim of the study:** *To determine the size of the reduction in air fungus numbers before and after exposure to 144 watts of ultraviolet light for 15 and 30 minutes and to be able to identify the mushrooms found.*

**Research methods :** *This type of research is a quasy experiment or quasi-experimental research design with a non-equivalent control group design. The object of this research was the number of air fungus colonies before and after being exposed to a 144 watt ultraviolet lamp for 15 minutes and 30 minutes. The data obtained were analyzed statistically using SPSS 24.0 for windows with the Paired Sample t Test and parametric test and Mann Whitney.*

**Research result :** *Percentage of decrease in the air fungus number after 15 minutes irradiation was 35%, percentage of decrease in the air fungus number after 30 minutes irradiation was 31%, the significance value of the 2 independent samples difference test was 0,806, the types of fungi found *Aspergillus sp.*, *Penicillium sp.*, *Rhizopus sp.* and *Candida sp.**

**Conclusion:** *There is no difference in the number of air fungi after irradiating 144 watts of ultraviolet light for 15 minutes and 30 minutes in the Mycology Laboratory, Health Analyst Department, Health Polytechnic of the Ministry of Health Yogyakarta.*

**Keywords :** *Room sterilization, ultraviolet light, air fung*